



1600

RAW SEQUENCE LISTING

DATE: 09/15/2003

PATENT APPLICATION: US/09/877,340C

TIME: 12:13:01

Input Set : A:\Sequence Listing Second Amended.txt

Output Set: N:\CRF4\09152003\I877340C.raw

3 <110> APPLICANT: BOCK, THOMAS
 4 TILLMAN, HANS
 5 MANNS, MICHAEL
 6 TRAUTWEIN, CHRISTIAN
 7 LOCARNINI, STEPHEN ALISTER
 8 TORRESI, JOSEPH
 10 <120> TITLE OF INVENTION: VIRAL VARIANTS AND USES THEREFOR
 12 <130> FILE REFERENCE: 4420.000600
 14 <140> CURRENT APPLICATION NUMBER: 09/877,340C
 15 <141> CURRENT FILING DATE: 2001-06-08
 17 <150> PRIOR APPLICATION NUMBER: 60/210,395
 18 <151> PRIOR FILING DATE: 2000-06-09
 20 <160> NUMBER OF SEQ ID NOS: 18
 22 <170> SOFTWARE: PatentIn version 3.1
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 76
 26 <212> TYPE: PRT
 27 <213> ORGANISM: Hepatitis B virus
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 30 <221> NAME/KEY: MISC_FEATURE
 31 <222> LOCATION: (2)..(2)
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 36 <221> NAME/KEY: MISC_FEATURE
 37 <222> LOCATION: (3)..(3)
 38 <223> OTHER INFORMATION: X = E or D
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 43 <222> LOCATION: (9)..(9)
 44 <223> OTHER INFORMATION: X = T, D, A, N, or Y
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 50 <223> OTHER INFORMATION: X = E or D
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 55 <222> LOCATION: (13)..(13)
 56 <223> OTHER INFORMATION: X = E, K, or Q
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 60 <221> NAME/KEY: MISC_FEATURE
 61 <222> LOCATION: (15)..(15)
 62 <223> OTHER INFORMATION: X = H, R, or N
 65 <220> FEATURE:

ENTERED

P.6

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67 <222> LOCATION: (18)..(18)
68 <223> OTHER INFORMATION: X = I or T
71 <220> FEATURE:
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73 <222> LOCATION: (23)..(23)
74 <223> OTHER INFORMATION: X = A or S
77 <220> FEATURE:
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79 <222> LOCATION: (26)..(26)
80 <223> OTHER INFORMATION: X = T or R
83 <220> FEATURE:
84 <221> NAME/KEY: MISC_FEATURE
85 <222> LOCATION: (40)..(40)
86 <223> OTHER INFORMATION: X = A, T, or S
89 <220> FEATURE:
90 <221> NAME/KEY: MISC_FEATURE
91 <222> LOCATION: (43)..(43)
92 <223> OTHER INFORMATION: X = R or T
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96 <221> NAME/KEY: MISC_FEATURE
97 <222> LOCATION: (45)..(45)
98 <223> OTHER INFORMATION: X = V or G
101 <220> FEATURE:
102 <221> NAME/KEY: MISC_FEATURE
103 <222> LOCATION: (55)..(55)
104 <223> OTHER INFORMATION: X = S, I, T, N, or V
107 <220> FEATURE:
108 <221> NAME/KEY: MISC_FEATURE
109 <222> LOCATION: (56)..(56)
110 <223> OTHER INFORMATION: X = T,S,H, or Y
113 <220> FEATURE:
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116 <223> OTHER INFORMATION: X = R, H, K, or Q
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122 <223> OTHER INFORMATION: X = Q or P
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128 1 5 10 15
131 Arg Xaa Pro Arg Thr Pro Xaa Arg Val Xaa Gly Gly Val Phe Leu Val
132 20 25 30
135 Asp Lys Asn Pro His Asn Thr Xaa Glu Ser Xaa Leu Xaa Val Asp Phe
136 35 40 45
139 Ser Gln Phe Ser Arg Gly Xaa Xaa Xaa Val Ser Trp Pro Lys Phe Ala
140 50 55 60
143 Val Pro Asn Leu Xaa Ser Leu Thr Asn Leu Leu Ser

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144 65 70 75
147 <210> SEQ ID NO: 2
148 <211> LENGTH: 181
149 <212> TYPE: PRT
150 <213> ORGANISM: Hepatitis B virus
152 <220> FEATURE:
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154 <222> LOCATION: (2)..(2)
155 <223> OTHER INFORMATION: X = N or D
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159 <221> NAME/KEY: MISC_FEATURE
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161 <223> OTHER INFORMATION: X = I or P
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166 <222> LOCATION: (29)..(29)
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172 <222> LOCATION: (35)..(35)
173 <223> OTHER INFORMATION: X = S or D
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177 <221> NAME/KEY: MISC_FEATURE
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179 <223> OTHER INFORMATION: X = T or N
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189 <221> NAME/KEY: MISC_FEATURE
190 <222> LOCATION: (47)..(47)
191 <223> OTHER INFORMATION: X = N or I
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195 <221> NAME/KEY: MISC_FEATURE
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197 <223> OTHER INFORMATION: X = ANY AMINO ACID
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201 <221> NAME/KEY: MISC_FEATURE
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203 <223> OTHER INFORMATION: X = N, Y, or H
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207 <221> NAME/KEY: MISC_FEATURE
208 <222> LOCATION: (52)..(52)
209 <223> OTHER INFORMATION: X = H or Y
212 <220> FEATURE:
213 <221> NAME/KEY: MISC_FEATURE
214 <222> LOCATION: (53)..(53)
215 <223> OTHER INFORMATION: X = G or R

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218 <220> FEATURE:
219 <221> NAME/KEY: MISC_FEATURE
220 <222> LOCATION: (54)..(54)
221 <223> OTHER INFORMATION: X = ANY AMINO ACID
224 <220> FEATURE:
225 <221> NAME/KEY: MISC_FEATURE
226 <222> LOCATION: (55)..(55)
227 <223> OTHER INFORMATION: X = ANY AMINO ACID
230 <220> FEATURE:
231 <221> NAME/KEY: MISC_FEATURE
232 <222> LOCATION: (56)..(56)
233 <223> OTHER INFORMATION: X = ANY AMINO ACID
236 <220> FEATURE:
237 <221> NAME/KEY: MISC_FEATURE
238 <222> LOCATION: (57)..(57)
239 <223> OTHER INFORMATION: X = D or N
242 <220> FEATURE:
243 <221> NAME/KEY: MISC_FEATURE
244 <222> LOCATION: (60)..(60)
245 <223> OTHER INFORMATION: X = D or N
248 <220> FEATURE:
249 <221> NAME/KEY: MISC_FEATURE
250 <222> LOCATION: (61)..(61)
251 <223> OTHER INFORMATION: X = S or Y
254 <220> FEATURE:
255 <221> NAME/KEY: MISC_FEATURE
256 <222> LOCATION: (65)..(65)
257 <223> OTHER INFORMATION: X = N or Q
260 <220> FEATURE:
261 <221> NAME/KEY: MISC_FEATURE
262 <222> LOCATION: (71)..(71)
263 <223> OTHER INFORMATION: X = L or M
266 <220> FEATURE:
267 <221> NAME/KEY: MISC_FEATURE
268 <222> LOCATION: (75)..(75)
269 <223> OTHER INFORMATION: X = K or Q
272 <220> FEATURE:
273 <221> NAME/KEY: MISC_FEATURE
274 <222> LOCATION: (77)..(77)
275 <223> OTHER INFORMATION: X = Y or F
278 <220> FEATURE:
279 <221> NAME/KEY: MISC_FEATURE
280 <222> LOCATION: (79)..(79)
281 <223> OTHER INFORMATION: X = R or W
284 <220> FEATURE:
285 <221> NAME/KEY: MISC_FEATURE
286 <222> LOCATION: (84)..(84)
287 <223> OTHER INFORMATION: X = Y or L
290 <220> FEATURE:

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291 <221> NAME/KEY: MISC_FEATURE
292 <222> LOCATION: (85)..(85)
293 <223> OTHER INFORMATION: X = S or A
296 <220> FEATURE:
297 <221> NAME/KEY: MISC_FEATURE
298 <222> LOCATION: (89)..(89)
299 <223> OTHER INFORMATION: X = I or V
302 <220> FEATURE:
303 <221> NAME/KEY: MISC_FEATURE
304 <222> LOCATION: (95)..(95)
305 <223> OTHER INFORMATION: X = I or L
308 <220> FEATURE:
309 <221> NAME/KEY: MISC_FEATURE
310 <222> LOCATION: (99)..(99)
311 <223> OTHER INFORMATION: X = V or G
314 <220> FEATURE:
315 <221> NAME/KEY: MISC_FEATURE
316 <222> LOCATION: (114)..(114)
317 <223> OTHER INFORMATION: X = C or L
320 <220> FEATURE:
321 <221> NAME/KEY: MISC_FEATURE
322 <222> LOCATION: (115)..(115)
323 <223> OTHER INFORMATION: X = A or S
326 <220> FEATURE:
327 <221> NAME/KEY: MISC_FEATURE
328 <222> LOCATION: (116)..(116)
329 <223> OTHER INFORMATION: X = V or M
332 <220> FEATURE:
333 <221> NAME/KEY: MISC_FEATURE
334 <222> LOCATION: (117)..(117)
335 <223> OTHER INFORMATION: X = V or T
338 <220> FEATURE:
339 <221> NAME/KEY: MISC_FEATURE
340 <222> LOCATION: (118)..(118)
341 <223> OTHER INFORMATION: X = R or C
344 <220> FEATURE:
345 <221> NAME/KEY: MISC_FEATURE
346 <222> LOCATION: (122)..(122)
347 <223> OTHER INFORMATION: X = F or P
350 <220> FEATURE:
351 <221> NAME/KEY: MISC_FEATURE
352 <222> LOCATION: (125)..(125)
353 <223> OTHER INFORMATION: X = L or V
356 <220> FEATURE:
357 <221> NAME/KEY: MISC_FEATURE
358 <222> LOCATION: (126)..(126)
359 <223> OTHER INFORMATION: X = A or V
362 <220> FEATURE:
363 <221> NAME/KEY: MISC_FEATURE

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/877,340C

DATE: 09/15/2003
TIME: 12:13:02

Input Set : A:\Sequence Listing Second Amended.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 2,3,9,10,13,15,18,23,26,40,43,45,55,56,57,69
Seq#:2; Xaa Pos. 2,17,29,35,44,46,47,48,50,52,53,54,55,56,57,60,61,65,71,75
Seq#:2; Xaa Pos. 77,79,84,85,89,95,99,114,115,116,117,118,122,125,126,128
Seq#:2; Xaa Pos. 133,138,139,140,141,143,145,147,148,149,150,151,152,153
Seq#:2; Xaa Pos. 156,157,164,179

VERIFICATION SUMMARY

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L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0

M:341 Repeated in SeqNo=1

L:478 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0

M:341 Repeated in SeqNo=2